

Work Order ID 137951

October 16, 2015 11:21:03 AM

137951

Page 1

Item ID: D350-636-015 Accept ***N900040100*** Setup Start ***NS1***
 Revision ID: Stop ***NS2***
 Item Name: Skidtube LH, Run-on Landing Wearplates, DART(Apical) Cylind./Aerazur Float Comp.
 Start Date: 10/16/2015 Start Qty: 1.00 ***1*** Cust Item ID:
 Required Date: 10/30/2015 Req'd Qty: 1.00 ***1*** Customer:
 Reference:

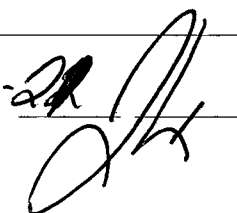
Approvals: Process Plan: SA Date: **0151016** Poling: _____ Date: _____
 QC: _____ Date: _____ SPC (Y/N): _____ Date: _____
 Run Start ***NR1***
 Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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Draw Nbr	Revision Nbr	
D4168-041	B	<u>SEP</u>

100	Document Control	0.00
100	DOCUMENT CONTROL	
DC	Memo	0.00
Doc.Control -USB or Paperwork	record fwd angle: <u>89.7°</u>	

Photocopy blue file and type labels per PPP D350-636-015 CHG 005

15-10-20 

IX DAS 28 9-89 NOV 27 2015

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval		
Description Work Order Deviation				Disposition					

Root Cause				FAULT CATEGORY			
Environment	☐	No Re-verification	☐	Pressure/Forced	☐	Temperature/Cure	☐
Design	☐	Operator	☐	Bending	☐	Set-up	☐
Doc/Data	☐	Offset/Setup	☐	Centre Not Concentric	☐	BOM/Route	☐
Equip/Tooling	☐	Supplier	☐	Cracks	☐	Broken/Damage/Defect	☐
Handling/Pre	☐	Training	☐	Crimp/Kink/Ripple/Wave	☐	Inspection Incomplete/Unqualified	☐
Material	☐	Use for Testing	☐	Cuffs	☐	Contamination	☐
Internal Transport	☐	Poor Information	☐	Crushing	☐	Countersink	☐
Tribal Knowledge	☐	Rushing	☐	Heat Treat	☐	Cut Too Short	☐
LOA	☐	Product Improvement	☐	Wave/Twist in Tube	☐	Instructions Incomplete/Unclear	☐
Substation	☐	Process Improvement	☐	Mark\$/Chatter	☐	Drill Holes	☐
Past Expiry Date	☐	Manufacturing Process	☐	OTHER :			
Misidentified	☐	Past Due	☐				

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Page 2

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QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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110

110

Skidtubes

Skidtubes

Skidtubes

Memo

1- Pick D2600-3 Bent

2- Deburr FWD and AFT ends, remove bending marks. Scribe batch# inside AFT end per dwg D4168

3- Drill pilot holes for blade fitting bolt holes using DT8983. Start with 3/16", then open to 0.500" using center drill then ream holes using 0.500" reamer. PIN first side. Repeat process on second side.

*****ENSURE PROPER POSITIONING FWD BEND MUST BE FACING UP WHEN DRILLING FIRST SIDE*****

Drill pilot holes as per Dwg D4168 sheet 4 (D4168-1 details). Drill using drill Jig DT8150 & DT8863A for first side only DT8863B for second side (detail B)

4- Locate DT8330 off of blade fitting bolt holes and drill pilot holes for blade fitting, section H-H. Open to 0.500" using hole saw. VERIFY AND RECORD FWD BEND ANGLE.

5- Drill tow ring hole using DT9616 detail "A"

6- Drill most FWD wearplate hole using DT9678 locating off of 66.54" hole.

7- Open up holes of Detail A to 0.297" (total of 2 holes per side) and .201" (total of 1 hole per side)

8- Weld D2744 Cap as per Dwg D4168 and QSI 004. Fill grooves in bend left from bending as per QSI 004

15-10-21

BE 15-10-21

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Equip/Tooling ☐	☐	Supplier ☐		Cracks ☐		Broken/Damage/Defect ☐	
Handling/Pre ☐	☐	Training ☐		Crimp/Kink/Ripple/Wave ☐		Inspection Incomplete/Unqualified ☐	
Material ☐	☐	Use for Testing ☐		Cuffs ☐		Contamination ☐	
Internal Transport ☐	☐	Poor Information ☐		Crushing ☐		Countersink ☐	
Tribal Knowledge ☐	☐	Rushing ☐		Heat Treat ☐		Cut Too Short ☐	
LOA ☐	☐	Product Improvement ☐		Wave/Twist in Tube ☐		Instructions Incomplete/Unclear ☐	
Substation ☐	☐	Process Improvement ☐		Marks/Chatter ☐		Drill Holes ☐	
Past Expiry Date ☐	☐	Manufacturing Process ☐		OTHER : _____ _____ _____			
Misidentified ☐	☐	Past Due ☐					

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Stop ***NR2***

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A/R Aluminum Rod batch: *M132917*

9- Grind welds flush as per Dwg D4168

BE15-10-21

120

QC10- Inspect visual per QSI004- ground welds 0.00

120

QC

Memo

0.00

Quality Control

DAS

38

9-89

OCT 22 2015

130

QC5- Inspect part completeness to step on W/O 0.00

130

QC

Memo

0.00

Quality Control

DAS

38

9-89

OCT 22 2015

DQA: _____ Date: _____



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Description Work Order Deviation		Disposition			
				Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐			
OTHER : ☐					

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137951

Page 4

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Item Name: Skidtube LH, Run-on Landing Wearplates, DART(Apical) Cylind./Aerazur Float Comp.

Start Date: 10/16/2015 Start Qty: 1.00

1

Cust Item ID:

Required Date: 10/30/2015 Req'd Qty: 1.00

1

Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start ***NR1***

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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140

Chemical Conversion Coat per QSI005 4.1

0.00

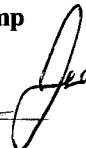
140

HandFinish

Memo

0.01

Hand Finishing

1	0	15-10-22	
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150

QC7-Inspect Chemical Conversion Coat

0.00

150

QC

Memo

0.00

Quality Control

1	0	15-10-22	
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Root Cause				FAULT CATEGORY			
Environment	☐	No Re-verification	☐	Pressure/Forced	☐	Temperature/Cure	☐
Design	☐	Operator	☐	Bending	☐	Set-up	☐
Doc/Data	☐	Offset/Setup	☐	Centre Not Concentric	☐	BOM/Route	☐
Equip/Tooling	☐	Supplier	☐	Cracks	☐	Broken/Damage/Defect	☐
Handling/Pre	☐	Training	☐	Crimp/Kink/Ripple/Wave	☐	Inspection Incomplete/Unqualified	☐
Material	☐	Use for Testing	☐	Cuffs	☐	Contamination	☐
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LOA	☐	Product Improvement	☐	Wave/Twist in Tube	☐	Instructions Incomplete/Unclear	☐
Substation	☐	Process Improvement	☐	Marks/Chatter	☐	Drill Holes	☐
Past Expiry Date	☐	Manufacturing Process	☐	OTHER : _____			
Misidentified	☐	Past Due	☐				

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Page 5

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Stop ***NS2***

Item Name: Skidtube LH, Run-on Landing Wearplates, DART(Apical) Cylind./Aerazur Float Comp.

Start Date: 10/16/2015 Start Qty: 1.00

1

Cust Item ID:

Required Date: 10/30/2015 Req'd Qty: 1.00

1

Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start ***NR1***

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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160

0.00

160

Skidtubes

0.02

Skidtubes

Memo

1-Open up holes using hole saw of Detail C and ground handling section AL-AL to 0.625" (total of 8 holes per side) as per dwg D4168.

2-Open up holes using hole saw of Detail B to 0.750" (total of 4 holes per side) as per dwg D4168.

3- Open float hole to 0.500" using uni-bit (4 per side) section AJ-AJ

Open wearplate holes to size as per dwg (4 holes per sides) , section CG-CG

4-Chamfer holes of Detail B, C, ground handling section AL-AL and float holes section AJ-AJ per dwg D4168 (welding instructions on sheet 8)

5-Deburr and blow out all chips from inside of tube

6- Prepare tube for welding, remove alodine as required.

7-Bond web D2739 in place as per QSI 015, let cure for 12hrs.

A/R Sikaflex-291 batch:

133136

exp. date:

16-2-12

ATTN: USE I-BEAM LOCATION AID (BLADE FITTING)

8- Weld spacers D3490-1, D3490-3 and D2743 as per dwg D4168 and D4170-1 & QSI004

(welding instructions on sheet 8)

A/R Aluminum Rod batch:

M32917

BE151103

15-10-22

DQA: _____ Date: _____



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Environment ☐	Design ☐	Doc/Data ☐	Equip/Tooling ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐
Handling/Pre ☐	Material ☐	Internal Transport ☐	Tribal Knowledge ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐
LOA ☐	Substation ☐	Past Expiry Date ☐	Misidentified ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐
				Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐
				Crimp/Kink/Ripple/Wave* ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐
				Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐
				Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐
				Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐
				Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐
				Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐
				OTHER : ☐			

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Page 6

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9- At section AJ-AJ drill out x-bolt spacer to 0.404"

BE 15-11-03

10-Grind welds flush as per Dwg D4168

15-11-09 Jk

11-Spot face ground handling holes section (total of 4 places per side) as per dwg D4168, section AL-AL

15-11-11 Jk

12- C'bore section CG CG. ADJUST TOOLING AS REQUIRED.
VERF BY: *DP*

DP 15-11-11

13- Deburr holes, ensure tube is free of all scratches before sending to paint.

15-11-11 Jk

***** FOR DELUXE SKIDTUBE IF APPLICABLE DRILL TOW RING HOLE IN TUBE *****

*****REF TO W/O BATCH: *U/A******

DP 15-11-11

170

QC10- Inspect visual per QSI004- ground welds 0.00

170

QC

Memo

0.00

Quality Control

DAS
38
9-89

NOV 12 2015

DQA: _____ Date: _____



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Page 7

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180	QC5- Inspect part completeness to step on W/O	0.00				1			DAS 38 9-89
180									
QC	Memo	0.00							
Quality Control	***VERIFY C'BOARD IS GOOD***								NOV 12 2015
190	Pressure Wash per QSI005 4.3	0.00							
190									
HandFinish	Memo	0.01							
Hand Finishing	Re-alodine tube as per QSI 005 section 4.1.2.1 do not acid etch.								
200		0.00							
200									
SprayPaint	Memo	0.01							DAS 41 9-89
Spray Painting	1- PRIME AS PER DWG AND QSI 005 4.2 PRIMER PRC DESOTO 515X349 BATCH: 130992								15-11-13
	2- PAINT WHITE AS PER DWG AND QSI 005 4.2 PAINT BATCH: 133325								

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Date :		Step #:		QTY Effective :			MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval				
Description Work Order Deviation				Disposition							
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐		No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐		Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐		Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐		Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐	
				OTHER : ☐							

Work Order ID 137951

October 16, 2015 11:21:03 AM

137951

Page 8

Item ID: D350-636-015

Accept

N900040100

Setup Start *NS1*

Revision ID:

Stop *NS2*

Item Name: Skidtube LH, Run-on Landing Wearplates, DART(Apical) Cylind./Aerazur Float Comp.

Start Date: 10/16/2015 Start Qty: 1.00 *1*

Cust Item ID:

Required Date: 10/30/2015 Req'd Qty: 1.00 *1*

Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start *NR1*

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
210	QC14- Inspect Spray Paint	0.00							
210									
QC	Memo	0.00							
Quality Control	Inspect for foreign object per QSI 024								
230		0.00							
230	HandFinishing								
HandFinish	Memo	0.02							
Hand Finishing	1- Install inserts as per Dwg D4168								
	2-Inspect for Foreign Objects								
	3-Install blade fitting D3488-041, wearshoes and ground handling hardware as per dwg D4168								
	SIKA FLEX 241								
	BATCH: M133427								
	EXP DATE: 16102								
	4-assemble o'ring to plug as per dwg D3492 and apply o'ring lube								
	A/R 55-o'ring lube batch: M133142 RTU 548 M133436 16105								
	5-Coat all exposed fasteners with "LPS Procyon" batch: M122900								

DAS
15
9-89

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval		
Description Work Order Deviation				Disposition					

Root Cause				FAULT CATEGORY							
Environment ☐	☐	No Re-verification ☐		☐	Pressure/Forced	☐	Temperature/Cure	☐	Power Loss/Surge	☐	Positioned Wrong
Design ☐	☐	Operator ☐		☐	Bending	☐	Set-up	☐	Folio/Program	☐	Outside Dimensions
Doc/Data ☐	☐	Offset/Setup ☐		☐	Centre Not Concentric	☐	BOM/Route	☐	Grain	☐	Over/Under tolerance
Equip/Tooling ☐	☐	Supplier ☐		☐	Cracks	☐	Broken/Damage/Defect	☐	Weld	☐	Part Incorrect
Handling/Pre ☐	☐	Training ☐		☐	Crimp/Kink/Ripple/Wave	☐	Inspection Incomplete/Unqualified	☐	Wrong Stock Pulled	☐	Part Lost/Missing
Material ☐	☐	Use for Testing ☐		☐	Cuffs	☐	Contamination	☐	Out of Sequence	☐	Part Moved
Internal Transport ☐	☐	Poor Information ☐		☐	Crushing	☐	Countersink	☐	Off-set	☐	Drawing
Tribal Knowledge ☐	☐	Rushing ☐		☐	Heat Treat	☐	Cut Too Short	☐	Mislabeled	☐	Finish
LOA ☐	☐	Product Improvement ☐		☐	Wave/Twist in Tube	☐	Instructions Incomplete/Unclear	☐	Fit/Function	☐	Misread
Substation ☐	☐	Process Improvement ☐		☐	Marks/Chatter	☐	Drill Holes	☐	Misaligned/off center	☐	Turning Sequence
Past Expiry Date ☐	☐	Manufacturing Process ☐		OTHER : _____							
Misidentified ☐	☐	Past Due ☐									

Work Order ID 137951

October 16, 2015 11:21:03 AM

137951

Page 9

Item ID: D350-636-015 Accept ***N900040100*** Setup Start ***NS1***
 Revision ID: Stop ***NS2***
 Item Name: Skidtube LH, Run-on Landing Wearplates, DART(Apical) Cylind./Aerazur Float Comp.
 Start Date: 10/16/2015 Start Qty: 1.00 ***1*** Cust Item ID:
 Required Date: 10/30/2015 Req'd Qty: 1.00 ***1*** Customer:
 Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
 QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
240	QC5- Inspect part completeness to step on W/O	0.00							DAS 38 9-89
240									NOV 20 2015
QC	Memo	0.00							
Quality Control									
250	Pick Kit	0.00							DAS 26 9-89
250									NOV 25 2015
Packaging	Memo	0.00							
Packaging	If making a D350-636-215 pick kit will only requires: 1 X AN3C37A 1 X AN3C34A 1 X AN3C42A 2 X D3493-1								
260	QC4- 100% Inspect kits for completeness	0.00							
260									DAS 28 9-89
QC	Memo	0.00							NOV 27 2015
Quality Control	*****ensure antiseize is on AN8C21A bolts*****								

DQA: _____ Date: _____

**WORK ORDER NON-CONFORMANCE / UPDATE**

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date : _____	Step #: _____	QTY Effective : _____		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition		Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐			
OTHER : _____					

Work Order ID 137951

October 16, 2015 11:21:03 AM

137951

Page 10

Item ID: D350-636-015**Accept*****N900040100*****Setup Start *NS1*****Revision ID:****Stop *NS2*****Item Name:** Skidtube LH, Run-on Landing Wearplates, DART(Apical) Cylind./Aerazur Float Comp.**Start Date:** 10/16/2015 **Start Qty:** 1.00***1*****Cust Item ID:****Required Date:** 10/30/2015 **Req'd Qty:** 1.00***1*****Customer:****Reference:****Approvals:** **Process Plan:** _____ **Date:** _____ **Tooling:** _____ **Date:** _____**Run Start *NR1*****QC:** _____ **Date:** _____ **SPC (Y/N):** _____ **Date:** _____**Stop *NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

270

0.00

270

Packaging

Packaging

Memo

0.00

Packaging

Identify and pack for shipping as per PPPD350-636-015
Location :FG071

1X

DAS
28
9-89

DEC 02 2015

280

QC21- Final Inspection - Work Order Release

0.00

280

QC

Memo

0.00

Quality Control

15/12/2015

Sgt 125951204

DQA: _____ Date: _____

**WORK ORDER NON-CONFORMANCE / UPDATE**

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval		
Description Work Order Deviation				Disposition				Completed By	
								Lead hand / Supervisor Approval Verification	
								QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY							
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐				
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐				
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐				
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐				
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐				
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐				
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐				
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐				
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐				
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐				
Past Expiry Date ☐	Manufacturing Process ☐	OTHER : ☐							
Misidentified ☐	Past Due ☐								

October 16, 2015 11:21:08 AM

137951

D350-636-015

Required Date: 10/30/2015

Required Qty: 1.00

IPP Rev:B

IPP Rev:C 11.10.18 as per

NCR 11-906 DD verf:EC IPP Rev:D 112.04.16 AS PER ECN 12-

542 DD verf:EC IPP REV:E 13.08.28 PER ECN13-594 DD

VERF:JLM

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
AN3C34A		Purchased	No			230	Each	13.0000	1	1			
AN3C34A									**				
BOLT													
				<u>Location</u>				<u>Loc Qty</u>		<u>Loc Code</u>			
				ST348				13					
				m131618				3					
				m133077				10					
AN3C36A		Purchased	No			230	Each	300.0000	4	4			
AN3C36A									**				
Bolt													
				<u>Location</u>				<u>Loc Qty</u>		<u>Loc Code</u>			
				FG				47					
				101261				4					
				122204				2					
				m131367				1					
				m132169				40					
				FP001				27					
				m131856				27					
				ST338a				152					
				m132381				80					
				m132522				72					
				ST347				74					
				131651				74					

Picklist Print

October 16, 2015 11:21:08 AM

Page 2

Work Order ID: 137951

137951

Parent Item: D350-636-015

D350-636-015

Parent Item Name: Skidtube LH, Run-on Landing Wearplates, DART(Apical) Cylind./Aerazur Float Comp.

Start Date: 10/16/2015

Required Date: 10/30/2015

D3492-1

Manufactured No

230 Each

Start Qty: 1.00
19.0000 8 8

Required Qty: 1.00

D3492-1

Plug

**

all 15/11/18LocationLoc QtyLoc Code

FP001

19

B136687 x8

131952

19

D3492-3

Manufactured No

230 Each

62.0000 8 8

D3492-3

Plug

**

all 15/11/18LocationLoc QtyLoc Code

FP001

62

125905

2

131036

1

131899

10

133470

49

x8

D3873-1

Manufactured No

230 Each

13.0000 7 7

D3873-1

Bushing

**

all 15/11/18LocationLoc QtyLoc Code

FP001

7

B137632 x7

126709

2

129742

5

ST063

6

134885

6

D4154-041

Manufactured No

230 Each

0.0000 1 1

D4154-041

Wearplate Assembly

**

B138703 (x) all 15/11/18

October 16, 2015 11:21:08 AM

Shop Packet Print

Page 2

Picklist Print

October 16, 2015 11:21:08 AM

Page 3

Work Order ID: 137951

137951

Parent Item: D350-636-015

D350-636-015

Parent Item Name: Skidtube LH, Run-on Landing Wearplates, DART(Apical) Cylind./Aerazur Float Comp.

Start Date: 10/16/2015

Required Date: 10/30/2015

D4170-1

Manufactured No

230

Each

Start Qty: 1.00
69.0000 4 4

Required Qty: 1.00

D4170-1

Bushing

**

BE15-11-03

Location

Loc Qty

Loc Code

LG001

69

107896

69

D4171-1

Manufactured No

230

Each

18.0000 1 1

D4171-1

Bushing

**

all used 18

Location

Loc Qty

Loc Code

ST088

18

129060

18

MS21043-3

Purchased No

230

Each

690.0000 5 5

MS21043-3

Nut

**

all used 18

Location

Loc Qty

Loc Code

FG

80

103691

80

FP001

11

m130673

11

GA

139

m130673

15

m131677

124

ST304

423

m131340

160

m133031

263

ST308

37

m132551

37

x 5

Picklist Print

October 16, 2015 11:21:08 AM

Page 4

Work Order ID: 137951

137951

Parent Item: D350-636-015

D350-636-015

Parent Item Name: Skidtube LH, Run-on Landing Wearplates, DART(Apical) Cylind./Aerazur Float Comp.

Start Date: 10/16/2015

Required Date: 10/30/2015

NAS1149C0363R

Purchased

No

230

Each

Start Qty: 1.00
1,083.000 9 9

Required Qty: 1.00

NAS1149C0363R

Washer

**

all 15/11/18

Location

Loc Qty

Loc Code

FP001

26

114742

26

GA

506

m133077

506

ST260a

494

m133077

494

ST271

57

m130673

20

m132763

37

X9

NAS1515H3L

Purchased

No

230

Each

275.0000 4 4

***NAS1515H3L ***

Washer

**

all 15/11/18

Location

Loc Qty

Loc Code

FG

40

102472

40

FP001

55

m127831

55

ST266

180

m127831

40

m130726

140

X4

NAS1611-010

Purchased

No

230

Each

431.0000 8 8

NAS1611-010

O-RING

**

all 15/11/18

Location

Loc Qty

Loc Code

FP001

431

m130770

271

m131618

160

X8

October 16, 2015 11:21:08 AM

Shop Packet Print

Page 4

Picklist Print

October 16, 2015 11:21:08 AM

Page 5

Work Order ID: 137951

137951

Parent Item: D350-636-015

D350-636-015

Parent Item Name: Skidtube LH, Run-on Landing Wearplates, DART(Apical) Cylind./Aerazur Float Comp.

Start Date: 10/16/2015

Required Date: 10/30/2015

NAS1611-013

Purchased

No

230

Each

Start Qty: 1.00
230.0000 8 8

Required Qty: 1.00

NAS1611-013

O-Ring

**

10/16/15

Location

Loc Qty

Loc Code

FP001

230

m130758

230

X 8

AN3C37A

Purchased

No

250

Each

457.0000 1 1

AN3C37A

BOLT

**



**.DAS
26
8-89**

NOV 25 2015

Location

Loc Qty

Loc Code

ST338a

457

131651

70

M128773

1

M129650

55

M131367

70

M131856

70

M132169

70

M132381

70

M132522

51

IX

**DAS
28
9-89**

Picklist Print

October 16, 2015 11:21:08 AM

Page 6

Work Order ID: 137951

137951

Parent Item: D350-636-015

D350-636-015

Parent Item Name: Skidtube LH, Run-on Landing Wearplates, DART(Apical) Cylind./Aerazur Float Comp.

Start Date: 10/16/2015

Required Date: 10/30/2015

AN3C42A

Purchased

No

250

Each

81.0000

Start Qty: 1.00

1

1

Required Qty: 1.00

DAS

26

9-89

AN3C42A

Bolt

Location

Loc Qty

Loc Code

FG

5

121103

5

ST338a

61

m130485

3

m131856

10

m132381

8

m132522

10

m132674

10

m133091

10

m133336

10

ST346

15

m131854

5

m131855

10

NAS1149D0863J

Purchased

No

250

Each

594.0000

2

2

DAS

26

9-89

NAS1149D0863J

Washer

Location

Loc Qty

Loc Code

FP001

49

125484

49

ST260a

415

125268

315

125635

100

ST269

130

125268

130

NOV 25 2015

Picklist Print

October 16, 2015 11:21:08 AM

Page 7

Work Order ID: 137951

137951

Parent Item: D350-636-015

D350-636-015

Parent Item Name: Skidtube LH, Run-on Landing Wearplates, DART(Apical) Cylind./Aerazur Float Comp.

Start Date: 10/16/2015

Required Date: 10/30/2015

D2744

Manufactured No

110

Each

18.0000

Start Qty: 1.00

1

1

Required Qty: 1.00

D2744

Cap

**

BE 10-21

Location

Loc Qty

Loc Code

LG001

18

128212

4

136178

14

D2600-3-BENT-LH

Manufactured No

110

Each

2.0000

1

1

D2600-3-BENT-LH

Extrusion Bent LH

**

15-10-21

Location

Loc Qty

Loc Code

LG002

2

135767

2

D2743

Manufactured No

160

Each

58.0000

8

8

D2743

Crossbolt Spacer

**

BE 11-03

Location

Loc Qty

Loc Code

LG001

58

130731

58

D2739

Manufactured No

160

Each

0.0000

1

1

D2739

350 I Beam

D3490-3

Manufactured No

160

Each

19.0000

4

4

D3490-3

Cross Bolt Spacer

**

BE 15-11-03

Location

Loc Qty

Loc Code

LG

19

130730

19

October 16, 2015 11:21:09 AM

Shop Packet Print

Page 7

Picklist Print

October 16, 2015 11:21:09 AM

Page 8

Work Order ID: 137951

137951

Parent Item: D350-636-015

D350-636-015

Parent Item Name: Skidtube LH, Run-on Landing Wearplates, DART(Apical) Cylind./Aerazur Float Comp.

Start Date: 10/16/2015

Required Date: 10/30/2015

D3490-1

Manufactured No

160

Each

Start Qty: 1.00
90.0000 4 4

Required Qty: 1.00

D3490-1

Cross Bolt Spacer

**

BE15-11-03

Location

Loc Qty

Loc Code

LG

23

133205

23

LG001

67

134019

67

ALS4-1032-225

AELS8-1032-225

Purchased

No

230

Each

556.0000 4 4

AI S4-1032-225

Rivnut

**

lll 151118

Location

Loc Qty

Loc Code

FG

120

M127028

120

FP001

45

M131582

45

st549

391

M131582

391

X4

Picklist Print

October 16, 2015 11:21:09 AM

Page 9

Work Order ID: 137951

137951

Parent Item: D350-636-015

D350-636-015

Parent Item Name: Skidtube LH, Run-on Landing Wearplates, DART(Apical) Cylind./Aerazur Float Comp.

Start Date: 10/16/2015

Required Date: 10/30/2015

AN8C35A

Purchased

No

230

Each

Start Qty: 1.00
99.0000 1 1

Required Qty: 1.00

AN8C35A

Bolt

**

lll 10/16/15

Location

Loc Qty

Loc Code

FG

5

121275

5

FP001

64

m131947

13

m132169

6

m132381

15

m132522

15

m132674

15

ST273A

30

m133332

15

m133336

15

D3488-041

Manufactured

No

230

Each

4.0000

1

1

D3488-041

Blade Fitting LH

**

lll 10/16/15

Location

Loc Qty

Loc Code

FP001

4

129601

4

xl

Picklist Print

October 16, 2015 11:21:09 AM

Page 10

Work Order ID: 137951

137951

Parent Item: D350-636-015

D350-636-015

Parent Item Name: Skidtube LH, Run-on Landing Wearplates, DART(Apical) Cylind./Aerazur Float Comp.

Start Date: 10/16/2015

Required Date: 10/30/2015

AN6C44A

Purchased

No

230

Each

601.0000

Start Qty: 1.00

4

4

Required Qty: 1.00

AN6C44A

Bolt

all is white

Location

Loc Qty

Loc Code

FP001

123

131649

100

m131367

1

m132169

22

ST273A

413

m130863

13

m131151

50

m132381

52

m132522

52

m132556

246

ST332

11

m130863

11

ST333

54

m130863

4

m131946

50

MS21083C8

Purchased

No

230

Each

35.0000

1

1

MS21083C8

Nut

all white

Location

Loc Qty

Loc Code

ST300

35

m132067

2

m133016

19

m133134

14

X 1

Picklist Print

October 16, 2015 11:21:09 AM

Page 11

Work Order ID: 137951

137951

Parent Item: D350-636-015

D350-636-015

Parent Item Name: Skidtube LH, Run-on Landing Wearplates, DART(Apical) Cylind./Aerazur Float Comp.

Start Date: 10/16/2015

Required Date: 10/30/2015

D3631-1

Manufactured No

230 Each

Start Qty: 1.00
178.0000 8 8

Required Qty: 1.00

D3631-1

Washer

all 13/11/18

Location

Loc Qty

Loc Code

FP001

178

128320

6

135951

100

136593

72

x8

NAS1149C0332R

Purchased No

230 Each

5,312.000 4 4

NAS1149C0332R

WASHER

all 15/11/18

Location

Loc Qty

Loc Code

FP001

1004

m132930

1004

FP01

1521

m133284

1521

x4

GA

441

m133284

441

ST271

2346

m133284

2346

D2745

Manufactured No

230 Each

71.0000 8 8

D2745

Bushing

all 15/11/18

Location

Loc Qty

Loc Code

FP001

71

129584

7

131049

14

136214

50

x8

Picklist Print

October 16, 2015 11:21:09 AM

Page 12

Work Order ID: 137951

137951

Parent Item: D350-636-015

D350-636-015

Parent Item Name: Skidtube LH, Run-on Landing Wearplates, DART(Apical) Cy Lind./Aerazur Float Comp.

Start Date: 10/16/2015

Required Date: 10/30/2015

NAS1149C0832R

Purchased

No

230

Each

Start Qty: 1.00
99.0000 1 1

Required Qty: 1.00

NAS1149C0832R

Washer

**

all skid

Location

Loc Qty

Loc Code

ST271

99

m125807

99

41

AN3C6A

Purchased

No

230

Each

159.0000 4 4

AN3C6A

Bolt

**

all skid

Location

Loc Qty

Loc Code

CA

39

m128704

39

FG

10

122416

10

ST249

50

m133363

50

ST338a

56

m128769

50

m133077

6

ST349

4

m132767

4

44

Picklist Print

October 16, 2015 11:21:09 AM

Page 13

Work Order ID: 137951

137951

Parent Item: D350-636-015

D350-636-015

Parent Item Name: Skidtube LH, Run-on Landing Wearplates, DART(Apical) Cylind./Aerazur Float Comp.

Start Date: 10/16/2015

Required Date: 10/30/2015

MS21043-6

Purchased

No

230

Each

59.0000

Start Qty: 1.00

4

4

Required Qty: 1.00

MS21043-6

NUT

**

all 10/16/15

Location

Loc Qty

Loc Code

FG

20

103693

20

M133483

kd

FP001

26

131618

2

m130325

2

m133077

1

m133234

21

ST304

13

m132164

13

D3493-1

Manufactured

No

250

Each

25.0000

2

D3493-1

Washer

**

2

B 134724

DAS 26 9-80

Location

Loc Qty

Loc Code

FG

10

97201

10

ST039

15

128755

15

MS21083C8

Purchased

No

250

Each

35.0000

2

2

MS21083C8

Nut

**

DAS 26 9-80

Location

Loc Qty

Loc Code

ST300

35

m132067

2

m133016

19

m133134

14

DAS 26 9-80

NOV 25 2015

2x

Picklist Print

October 16, 2015 11:21:09 AM

Page 14

Work Order ID: 137951

137951

Parent Item: D350-636-015

D350-636-015

Parent Item Name: Skidtube LH, Run-on Landing Wearplates, DART(Apical) Cylind./Aerazur Float Comp.

Start Date: 10/16/2015

Required Date: 10/30/2015

AN8C21A

Purchased

No

250

Each

92.0000

Start Qty: 1.00
2

Required Qty: 1.00

AN8C21A

Bolt

**

2

m131311

m132674

DAS
26
9-89

DAS
28
9-89

Location

Loc Qty

Loc Code

FG

4

123966

2

m132169

2

ST273A

69

m132542

11

m132674

30

m133332

28

ST332

19

m131100

1

m132169

2

m132381

12

m132522

4

D2741

Manufactured

No

250

Each

28.0000

1

D2741

Replacement Blade

**

1

B135909

DAS
26
9-89

Location

Loc Qty

Loc Code

FG

10

131616

10

ST538

18

131616

1

132981

17

DAS
28
9-89

NOV 2 2015

QTY -041	QTY -042	QTY -043	QTY -044	PART NUMBER	DESCRIPTION
X				D4168-041	350 SKIDTUBE ASSEMBLY, LH
	X			D4168-042	350 SKIDTUBE ASSEMBLY, RH
		X		D4168-043	350 SKIDTUBE ASSEMBLY, LH
			X	D4168-044	350 SKIDTUBE ASSEMBLY, RH
1	1	1	1	D2739	WEB
8	8	8	8	D2743	SPACER
1	1	1	1	D2744	CAP
8	8	8	8	D2745	BUSHING
1				D3488-041	BLADE FITTING, LH
	1		1	D3488-042	BLADE FITTING, RH
4	4	4	4	D3490-1	SPACER
4	4			D3490-3	SPACER
		4	4	D3490-5	SPACER
8	8	8	8	D3492-041	PLUG ASSEMBLY
8	8			D3492-043	PLUG ASSEMBLY
		8	8	D3492-045	PLUG ASSEMBLY
8	8	8	8	D3631-1	WASHER
7	7	7	7	D3873-1	BUSHING
1	1	1	1	D4154-041	WEARPLATE ASSEMBLY
1				D4168-1	SKIDTUBE WELDMENT, LH
	1			D4168-2	SKIDTUBE WELDMENT, RH
		1		D4168-3	SKIDTUBE WELDMENT, LH
			1	D4168-4	SKIDTUBE WELDMENT, RH
4	4	4	4	D4170-1	SPACER
1	1	1	1	D4171-1	BUSHING
4	4	4	4	ALS4-1032-225	INSERT
4	4	4	4	AN3C6A	BOLT
1	1	1	1	AN3C34A	BOLT
4	4	4	4	AN3C36A	BOLT
4	4	4	4	AN6C44A	BOLT
1	1	1	1	AN8C35A	BOLT
9	9	9	9	AN960C10	WASHER (OR NAS1149CO363R)
4	4	4	4	AN960C10L	WASHER (OR NAS1149CO332R)
1	1	1	1	AN960C816L	WASHER (OR NAS1149CO832R)
5	5	5	5	MS21043-3	NUT
4	4	4	4	MS21043-6	NUT
1	1	1	1	MS21083C8	NUT
4	4	4	4	NAS1515H3L	WASHER

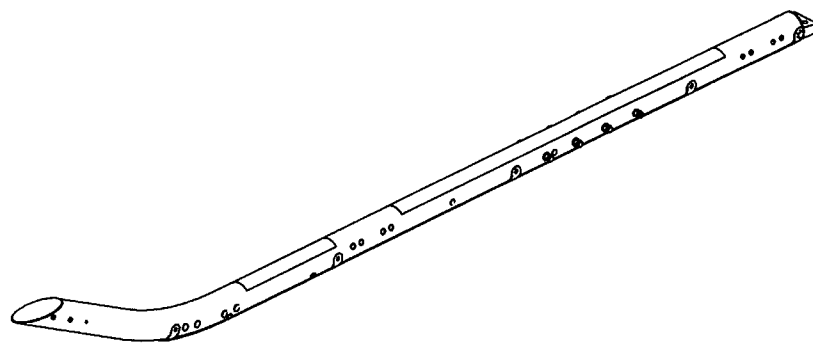
GENERAL NOTES:

- MATERIAL: MAKE D4168-1/-2/-3/-4 FROM D2600-3 EXTRUSION (INITIAL LENGTH = 120.0).
- FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1 PRIOR TO INSTALLING D2739 WEB.
STANDARD: PRIME (REF. 4.2.1.3.3) AND PAINT WHITE PER DART QSI 005 4.2
OPTIONAL: POWDER COAT WHITE (REF. 4.3.5.1) PER DART QSI 005 4.3
BLACK ANTI-SKID PAINT AS INDICATED TO 1.0 ABOVE SKIDTUBE CENTER-LINE PER DART 005 4.4 (OPTIONAL).
- TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- UNITS: INCHES UNLESS OTHERWISE NOTED
- BREAK SHARP EDGES: N/A
- IDENTIFICATION: N/A
- WEIGHT: D4168-041/-042/-043/-044 = 32.3 LBS
- WELD PER DART QSI 004
- FINAL CONFIGURATION SHOULD HAVE THE FOLLOWING MINIMUM MECHANICAL PROPERTIES:
MINIMUM YIELD TENSILE STRENGTH = 35 KSI
MINIMUM ULTIMATE TENSILE STRENGTH = 38 KSI
- COAT ALL EXPOSED FASTENERS WITH LPS LABORATORIES "LPS PROCYON" AFTER FINAL ASSEMBLY, CLEAN EXCESS OFF
FINISH WITH MEK DEGREASER.
- SPACER AND PLUG INSTALLED SAME AS SECTION AJ-AJ EXCEPT HORIZONTAL
- SPACER AND PLUG INSTALLED SAME AS SECTION AP-AP EXCEPT HORIZONTAL

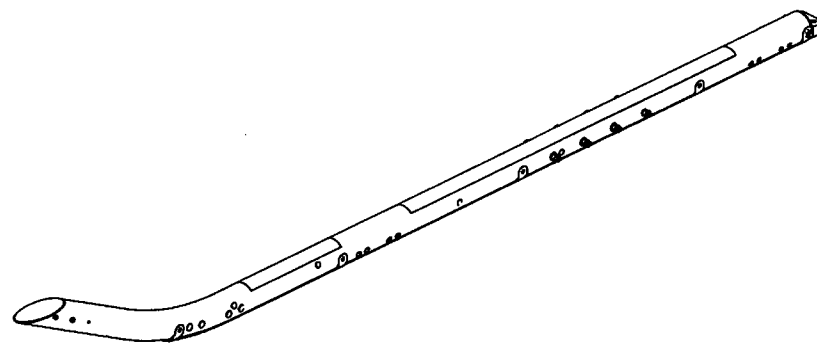
RELEASED
2013-08-13
WJP

20151016 SH 137957

B	ADD VIEW TO CONTROL FWD BEND ORIENTATION (2N D-1-4/-5/-6/-7); UPDATED FINISH OPTIONS. REASON: PART13-276 AND NCR13-2757	MB	13.07.11
A	NEW ISSUE	SC	10.08.09
REV.	DESCRIPTION	BY	DATE
DESIGN	SE	DART AEROSPACE USA, INC.	
DRAWN	JP	KENT, WA	
CHECKED	JP	DRAWING NO.	REV. B
MFG. APPR.	JP	D4168	SHEET 1 OF 11
APPROVED	JP	TITLE	SCALE
DE APPR.	JP	350 SKIDTUBE ASSEMBLY	NTS
DATE	13.07.11	COPYRIGHT © 2010 BY DART AEROSPACE USA, INC. THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS RELEASED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE USA, INC.	



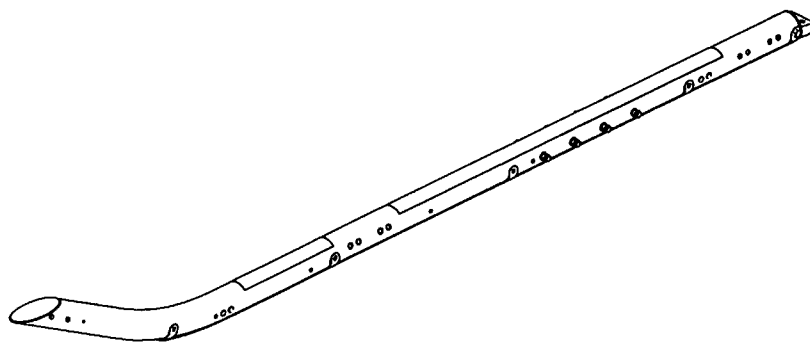
D4168-041 350 SKIDTUBE ASSEMBLY, LH



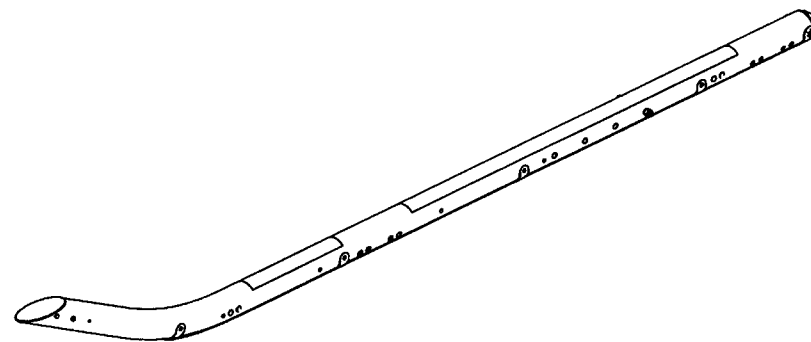
D4168-042 350 SKIDTUBE ASSEMBLY, RH

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2013-08-13
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CHECKED	<i>[Signature]</i>	DRAWING NO.	REV. B
MFG. APPR.	<i>[Signature]</i>	D4168	SHEET 2 OF 11
APPROVED	<i>[Signature]</i>	TITLE	SCALE
DE APPR.	<i>[Signature]</i>	350 SKIDTUBE ASSEMBLY	NTS
DATE	13.07.11	COPYRIGHT © 2010 BY DART AEROSPACE USA, INC. THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSES OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE USA, INC.	



D4168-043 350 SKIDTUBE ASSEMBLY, LH

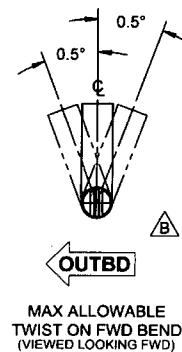
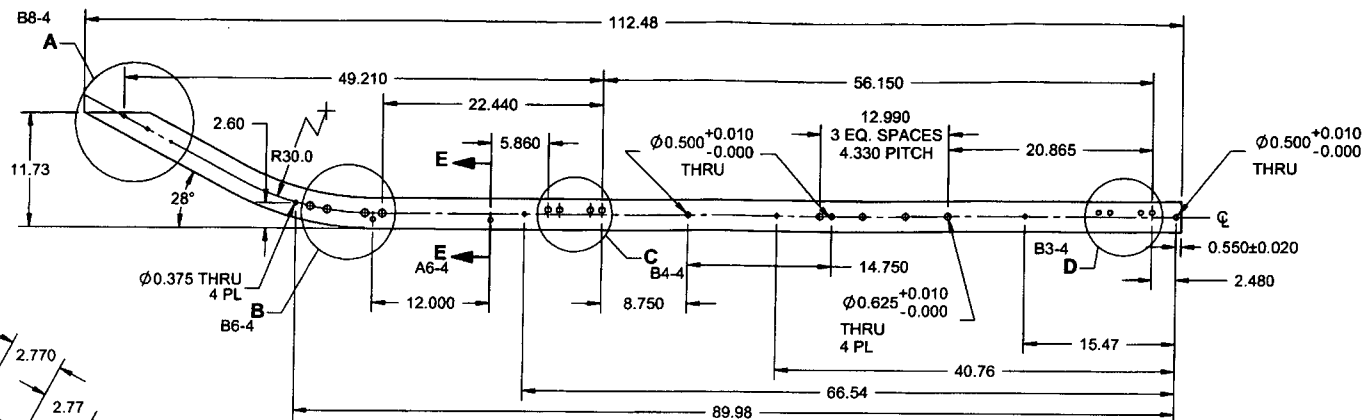


D4168-044 350 SKIDTUBE ASSEMBLY, RH

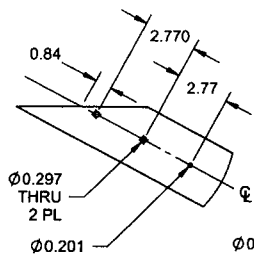
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DATE	13.07.11	

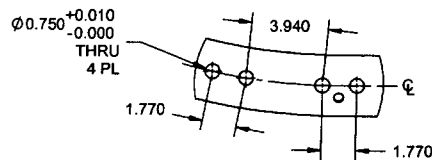
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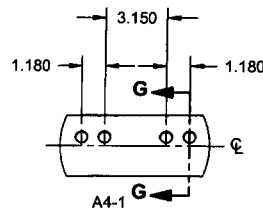
D4168-1 LH SKIDTUBE



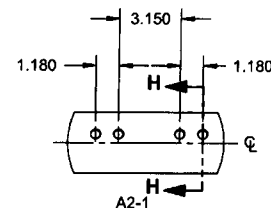
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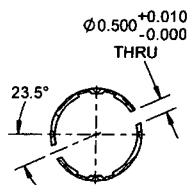
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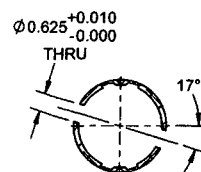
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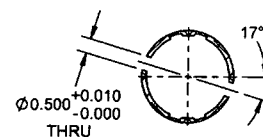
DETAIL D
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SECTION E-E
SCALE 3X, 2 PL



SECTION G-G
SCALE 3X, 4 PL



SECTION H-H
SCALE 3X, 4 PL

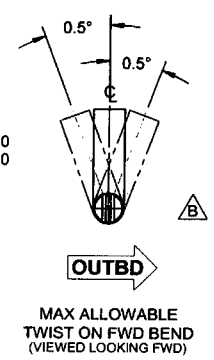
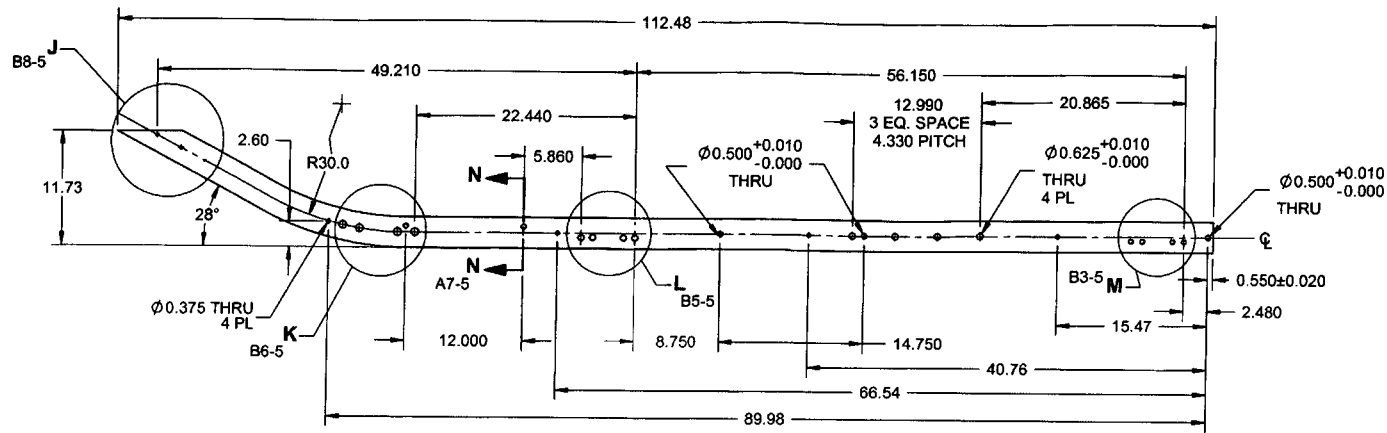
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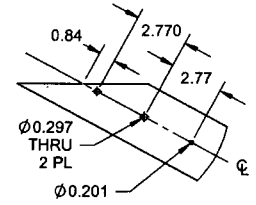
DART AEROSPACE USA, INC.
KENT, WA

DRAWING NO. **D4168**
TITLE **350 SKIDTUBE ASSEMBLY**
REV. A
SHEET 4 OF 11
SCALE
NTS
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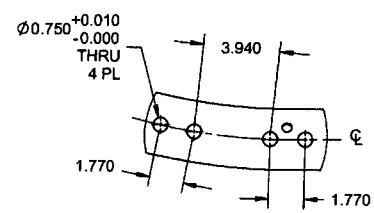
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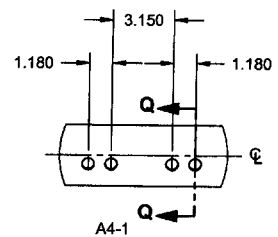
D4168-2 RH SKIDTUBE



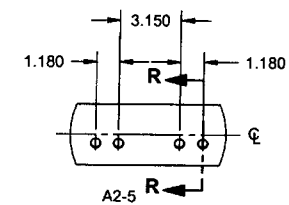
DETAIL J
SCALE 2X



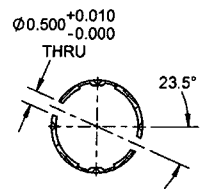
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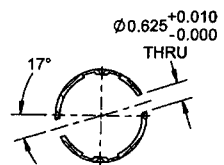
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SCALE 2X



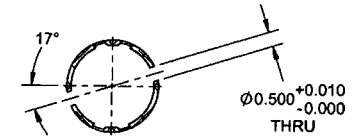
DETAIL M
SCALE 2X



SECTION N-N
SCALE 3X, 2 PL



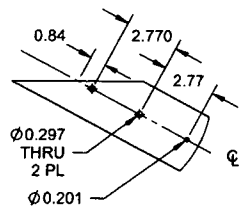
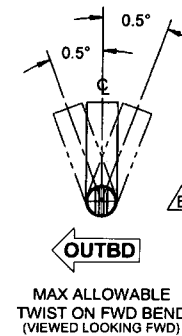
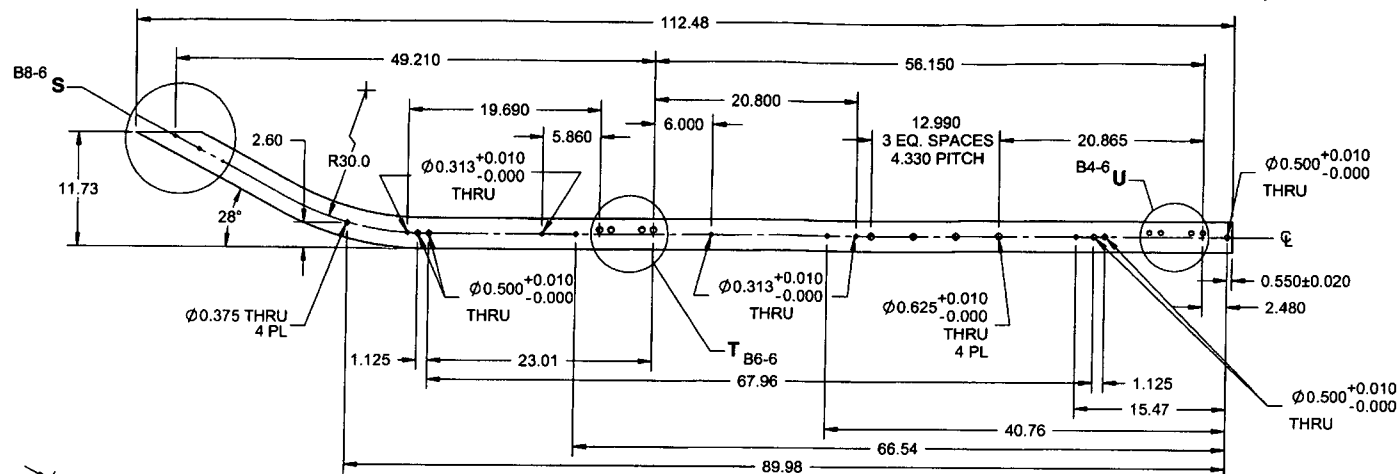
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SCALE 3X, 4 PL



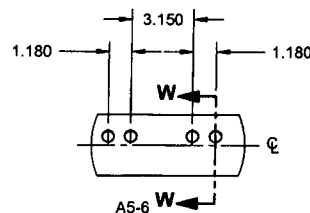
SECTION R-R
SCALE 3X, 4 PL

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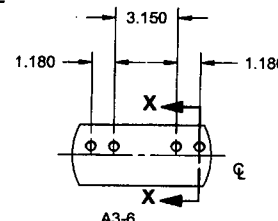
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D4168 350 SKIDTUBE ASSEMBLY		DRAWING NO. D4168 TITLE 350 SKIDTUBE ASSEMBLY



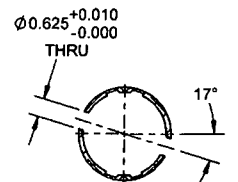
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SCALE 2X



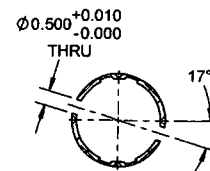
DETAIL T
SCALE 2X



DETAIL U
SCALE 2X



SECTION W-W
SCALE 3X, 4 PL

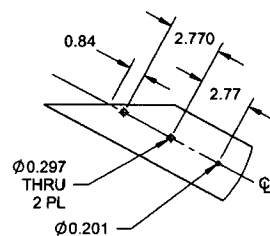
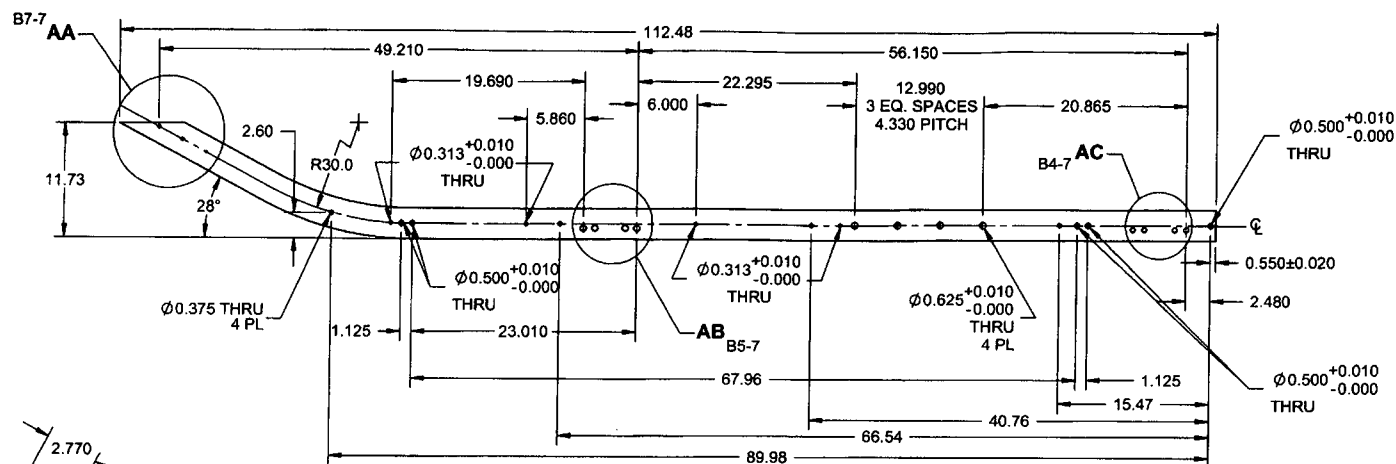


SECTION X-X
SCALE 3X, 4 PL

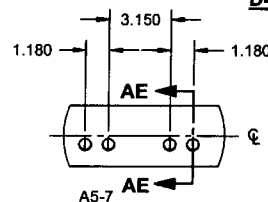
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2013-08-13
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DE APPR.		
DATE	13.07.11	

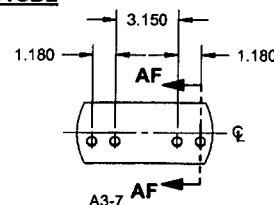
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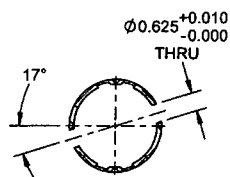
DETAIL AA
D7-7
SCALE 2X



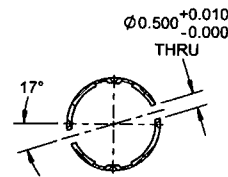
DETAIL AB
C4-7
SCALE 2X



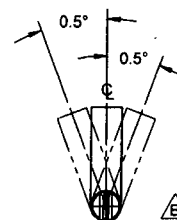
DETAIL AC
D3-7
SCALE 2X



SECTION AE-AE
B6-7
SCALE 3X, 4 PL



SECTION AF-AF
B4-7
SCALE 3X, 4 PL

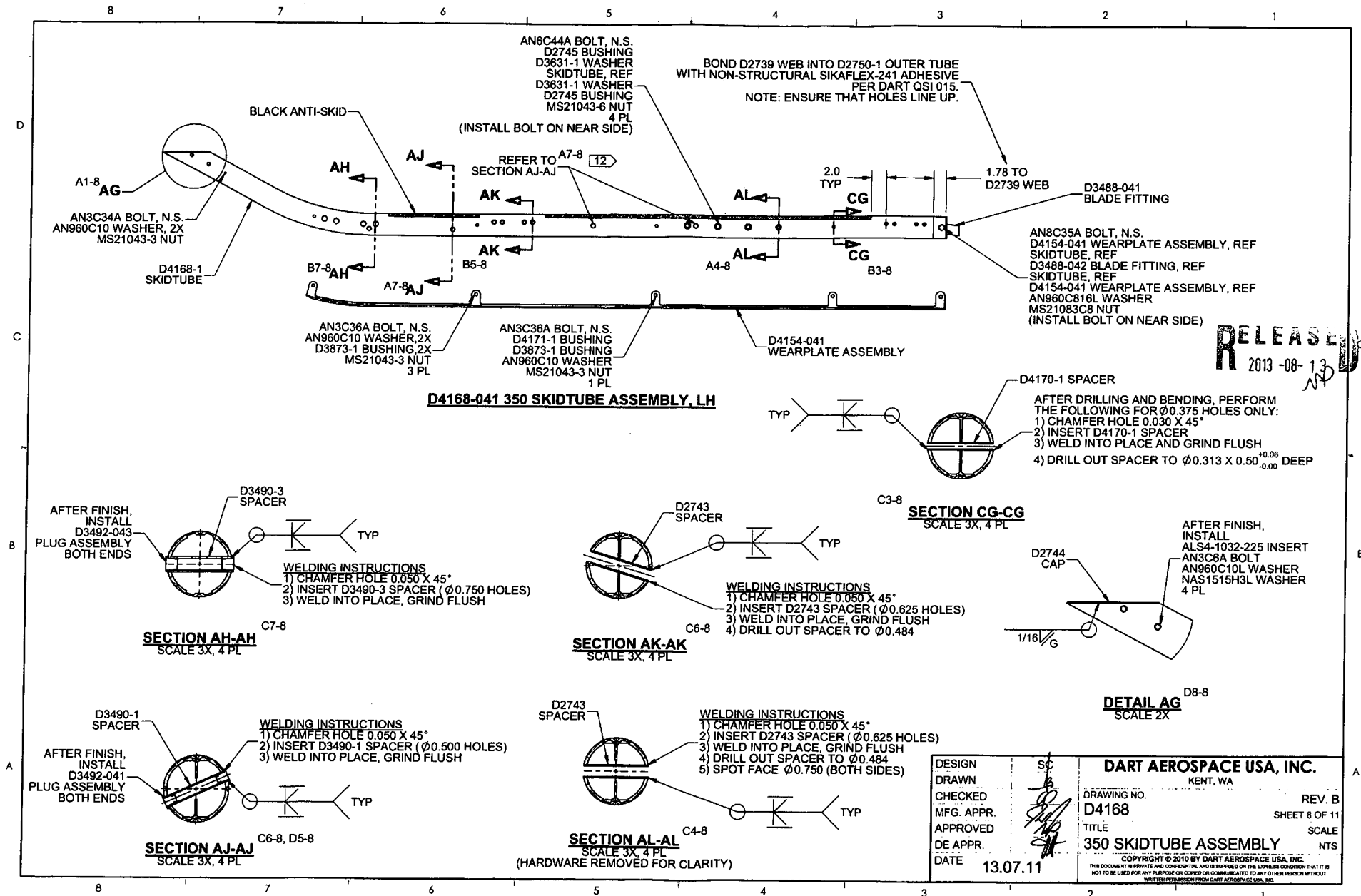


OUTBD
MAX ALLOWABLE
TWIST ON FWD BEND
(VIEWED LOOKING FWD)

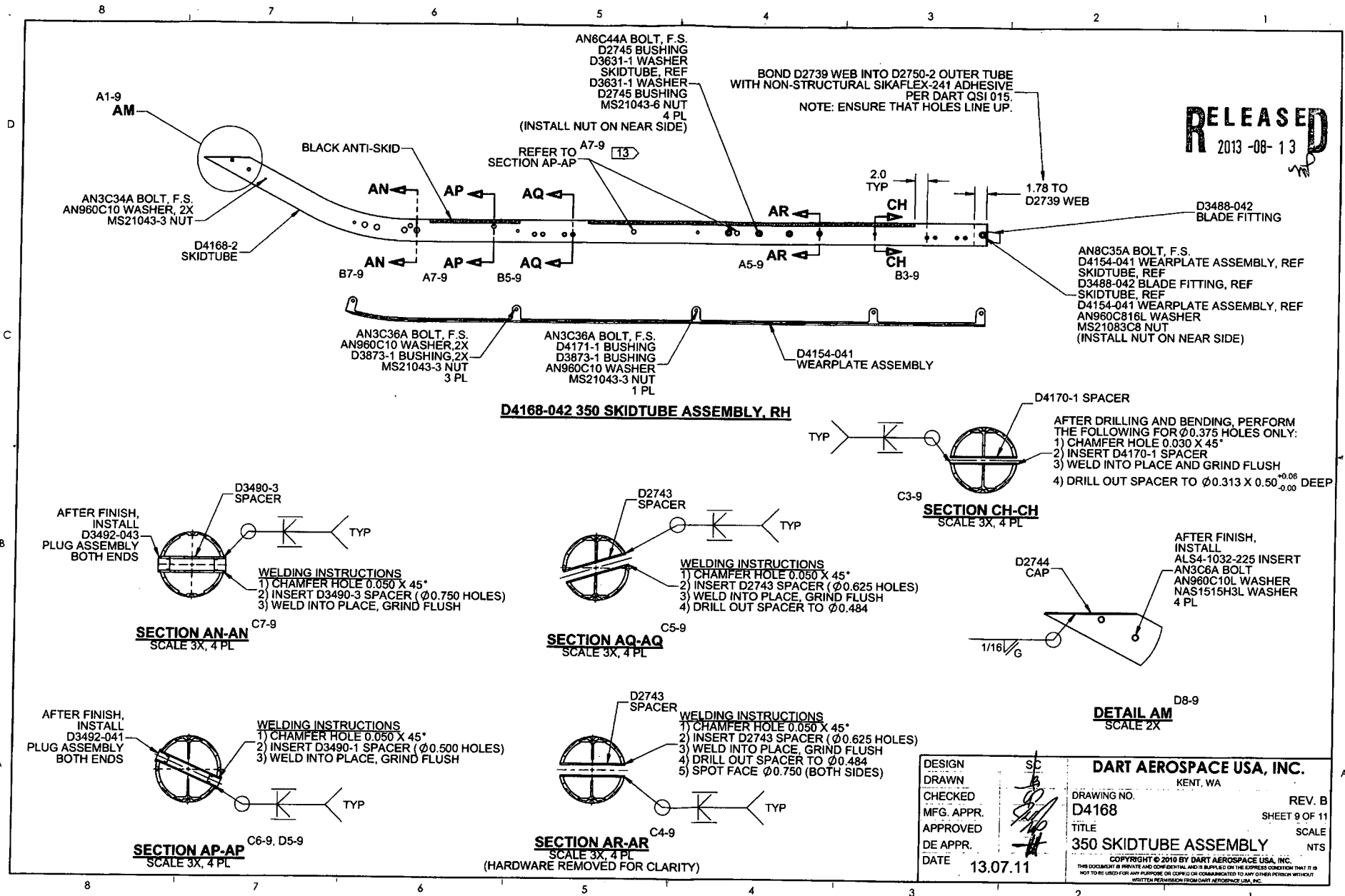
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2013-08-13
JMP

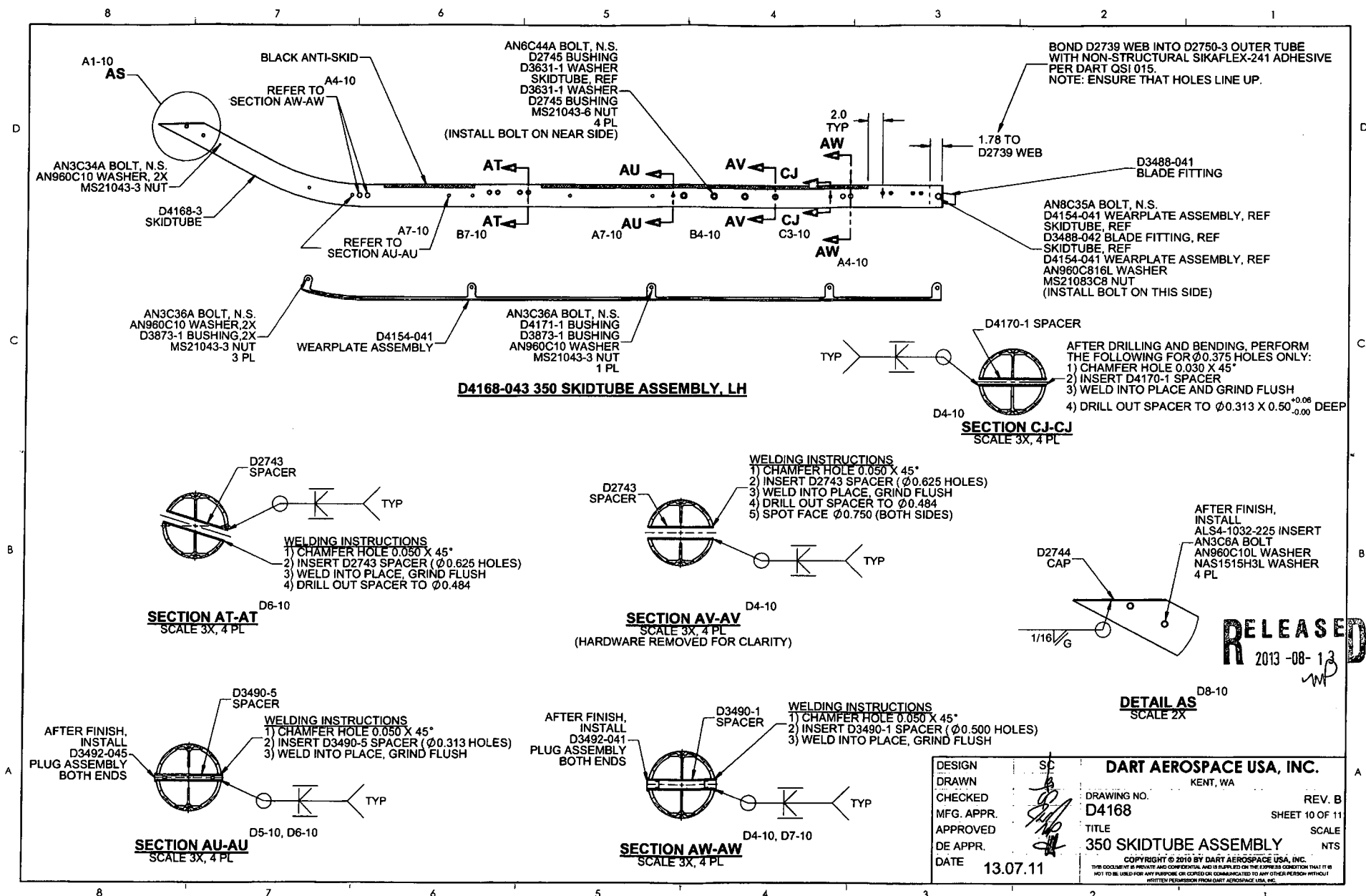
DESIGN DRAWN CHECKED MFG. APPR. APPROVED DE APPR. DATE	SC B J P P P 13.07.11	DART AEROSPACE USA, INC. KENT, WA DRAWING NO. D4168 TITLE 350 SKIDTUBE ASSEMBLY COPYRIGHT © 2010 BY DART AEROSPACE USA, INC. THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE USA, INC.	REV. B SHEET 7 OF 11 SCALE NTS
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8 7 6 5 4 3 2 1

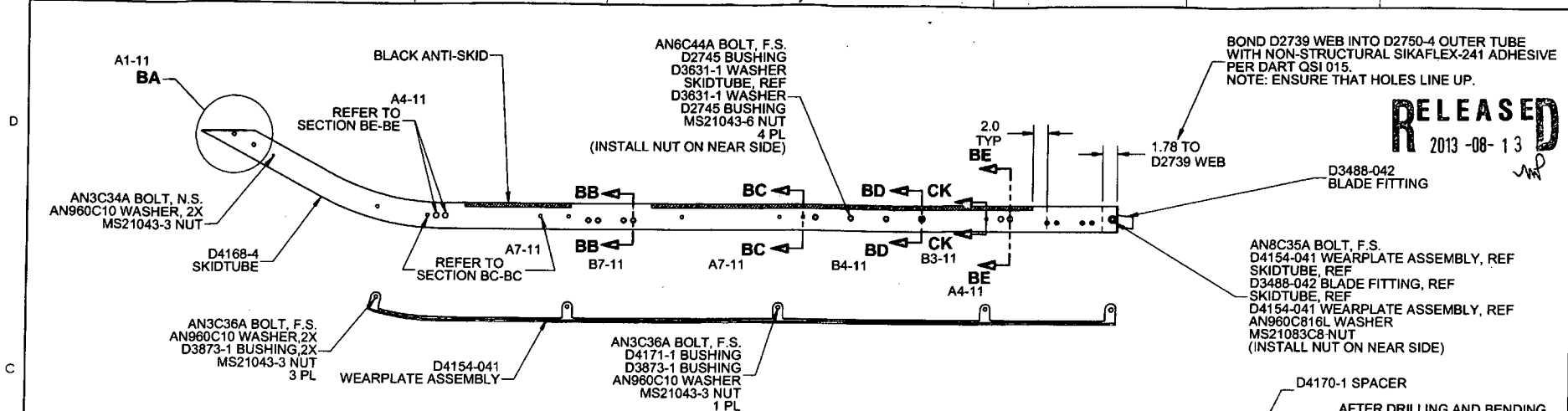


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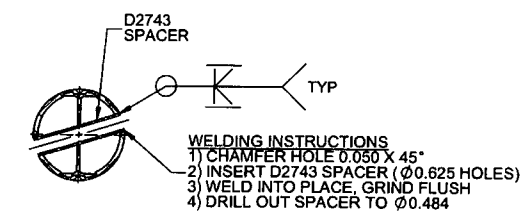




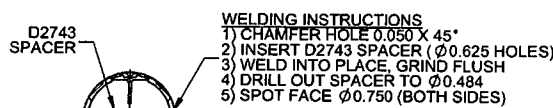
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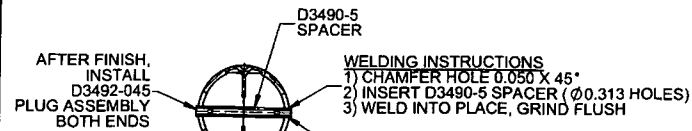
D4168-044 350 SKIDTUBE ASSEMBLY, RH



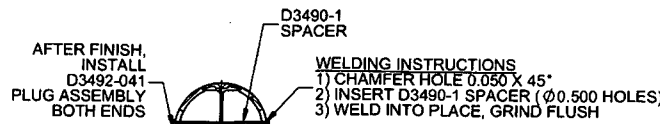
SECTION BB-BB
SCALE 3X, 4 PL



SECTION BD-BD
SCALE 3X, 4 PL
(HARDWARE REMOVED FOR CLARITY)



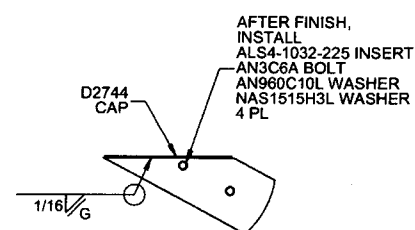
SECTION BC-BC
SCALE 3X, 4 PL



SECTION BE-BE
SCALE 3X, 4 PL



SECTION CK-CK
SCALE 3X, 4 PL



DETAIL BA
SCALE 2X

DESIGN		SC		DART AEROSPACE USA, INC.	
DRAWN		JG		KENT, WA	
CHECKED		JG		DRAWING NO. D4168	
MFG. APPR.		JG		REV. B	
APPROVED		JG		SHEET 11 OF 11	
DE APPR.		JG		SCALE	
DATE 13.07.11				TITLE 350 SKIDTUBE ASSEMBLY	
				NTS	

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8 7 6 5 4 3 2 1

Work Order ID 137951

137951

Page 1

October 16, 2015 11:21:03 AM

Item ID: D350-636-015 Accept *N900040100* Setup Start *NS1*
 Revision ID: Stop *NS2*

Item Name: Skidtube LH, Run-on Landing Wearplates, DART(Apical) Cylind./Aerazur Float Comp.

Start Date: 10/16/2015 Start Qty: 1.00 *1* Cust Item ID:
 Required Date: 10/30/2015 Req'd Qty: 1.00 *1* Customer:

Reference: Run Start *NR1*
 Approvals: Process Plan: SA Date: 0151016 Soling: _____ Date: _____
 QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Revision Nbr								
D4168-041	B	<u>0.00</u>							
100	Document Control	0.00							
100	DOCUMENT CONTROL								
DC	Memo	0.00							
Doc.Control -USB or Paperwork	record fwd angle: <u>89.7°</u>								

Photocopy blue file and type labels per PPP D350-636-015 CHG 005

15-11-25
15-10-24
MLJ
15-10-24
15-11-25